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STRUCTURE FILE UPDATES: 19 OCT 2006 HIGHEST RN 910855-26-4  
 DICTIONARY FILE UPDATES: 19 OCT 2006 HIGHEST RN 910855-26-4

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

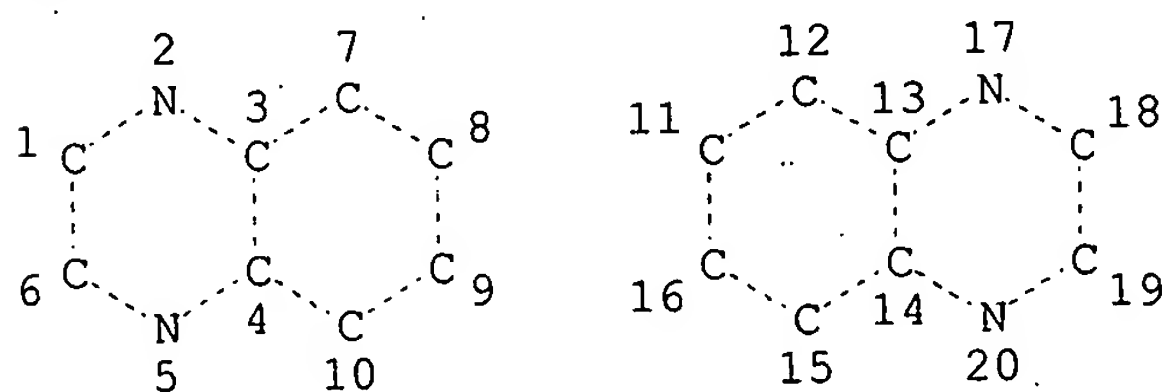
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<http://www.cas.org/ONLINE/UG/regprops.html>

=> d sta que 161

L31 34148 SEA FILE=REGISTRY ABB=ON PLU=ON NC2NC2-C6/ES AND NR>=4  
 L55 STR



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE  
 L57 2033 SEA FILE=REGISTRY SUB=L31 SSS FUL L55  
 L58 STR

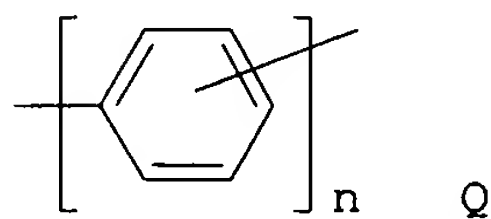
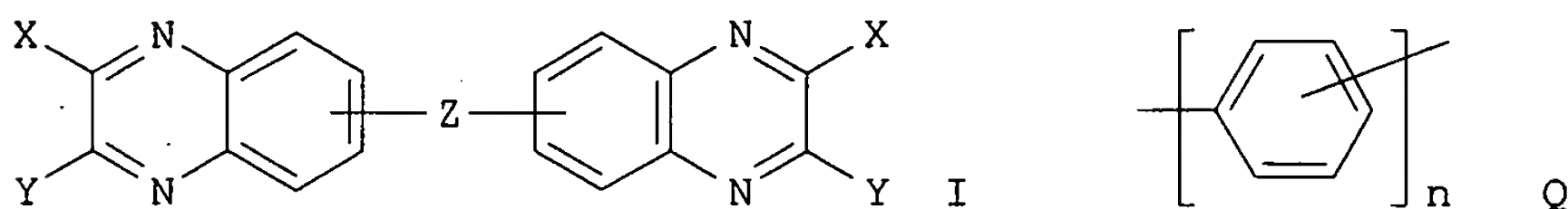
Hy-G1	Hy @3	Ak-Hy	Cb-Hy	Cb-Cb-Hy
1 2		@6 4	@8 7	@11 10 9

Hy-Hy  
 @13 12

VAR G1=3/6/8/11/13  
 NODE ATTRIBUTES:

AN 1995:475962 HCAPLUS  
 DN 122:277722  
 TI Organic electroluminescent device having metal-quinoxaline mixed cathode  
 IN Nakamura, Hiroaki; Hironaka, Yoshio; Kusumoto, Tadashi  
 PA Idemitsu Kosan Co, Japan  
 SO Jpn. Kokai Tokkyo Koho, 24 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07026255	A2	19950127	JP 1993-173402	19930713 <--
PRAI	JP 1993-173402		19930713 <--		
OS	MARPAT 122:277722				
GI					

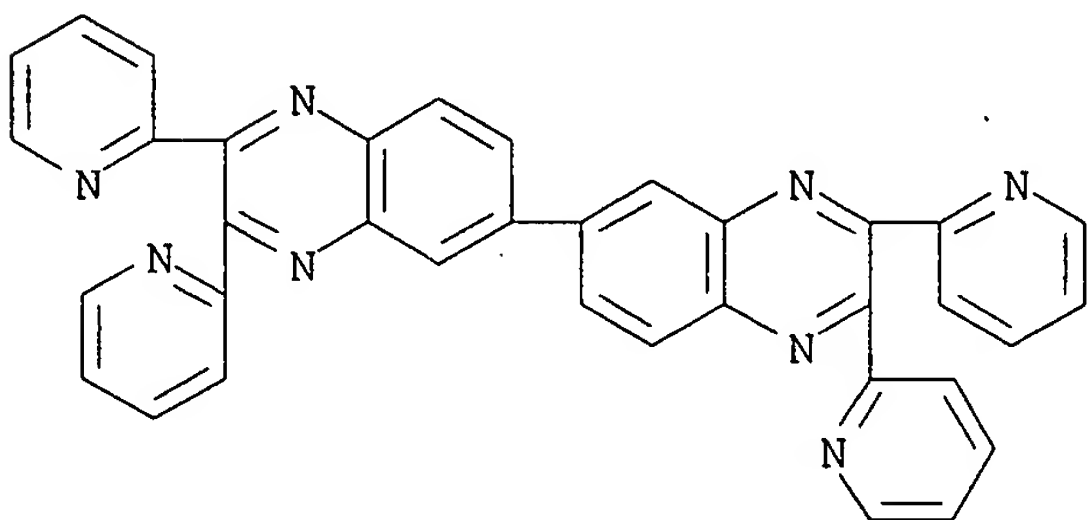


AB The device has a mixed cathode containing an electron-injecting metal and a quinoxaline derivative I (Z = none, O, SO<sub>2</sub>, S, CH:CH, CO, CMe<sub>2</sub>, C(CF<sub>3</sub>)<sub>2</sub>, naphthalene-1,4-diyl, naphthalene-3,7-diyl, (CH<sub>2</sub>)<sub>n</sub>, Q, (OC<sub>6</sub>H<sub>4</sub>)<sub>n</sub>O; X, Y = H, C1-6 alkyl, C6-18 aryl, C3-12 heterocyclic group; aryl or heterocyclic group may be substituted with NO<sub>2</sub>, NH<sub>2</sub>, cyano, OH, CO<sub>2</sub>H, methylthio, ethylthio, halo, C1-6 alkoxy, C1-6 alkoxy carbonyl, C1-8 dialkylamino, C2-12 dialkyleneoxy, or C1-6 alkylene(di)oxy; (n = 1-3). The device showed high luminescent efficiency and stability.

IT 81294-31-7P  
 RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)  
 (electroluminescent device having metal-quinoxaline mixed cathode with high luminescent efficiency)

RN 81294-31-7 HCAPLUS

CN 6,6'-Biquinoxaline, 2,2',3,3'-tetra-2-pyridinyl- (9CI) (CA INDEX NAME)



L71 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1995:408404 HCAPLUS  
 DN 122:251631  
 TI Organic electroluminescence device  
 IN Hironaka, Yoshio; Shoji, Hiroshi; Hosokawa, Chicho